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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,074	01/16/2004	Hideo Horigome	00862.023407.	5289

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EXAMINER	
FANTU, YALKEW	
ART UNIT	PAPER NUMBER
2838	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,074	HORIGOME, HIDEO	
	Examiner	Art Unit	
	Yalkew Fantu	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/8/5;6/7/4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. The references to the Chinese Office Actions dated 9/9/2005 for US applications 10/758074 and 10/758192 are not considered since there is not relevance statement, no translation and no list. See 37 CFR 1.98(a)(3), requiring a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each reference listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-10 and 12, drawn to a charging apparatus with residual capacity detection, classified in class 320, subclass 132.

II. Claim 11, drawn to a printer, classified in class 347, and subclass 20.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2)

that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination requires the dummy-excitation of a motor. The subcombination has separate utility such as a printer.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Frank L. Cire on 1/18/06 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10 and 12. Affirmation of this election must be made by applicant in replying to this Office action. Claim 11 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "951(a)" has been used to designate both "951(a)" and "951(b)". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in

reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: on page 14 line 4 reference character "951b" appears not to be labeled in the corresponding drawing.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Toya (US 5,525,888).

With respect to claim 1, Toya discloses an electric charging apparatus (Fig. 1 element 30) including a secondary battery (rechargeable battery) (Fig. 3 element 20; Col. 3 line 49), attachable to or detachable from an electronics apparatus (Fig. 1 element 10), in addition to that see (Col. 3 line 1-11). (The battery pack in Fig 1. element 20 contains rechargeable batteries). The electronic charging apparatus comprises:

Reception means (Fig. 3 elements 12 and 35) for receiving residual (remaining) capacity information (Col.5 lines 17-18); a display (Fig. 3 element 36) control means (Fig. 3 element 43) for displaying a battery residual capacity (Col. 5 lines 17 and 18) based on residual capacity information received (Col. 5 lines 25-27).

With respect to claim 2, Toya discloses the charging apparatus according to claim1, wherein said display control means (Fig.3 element 43) displays pattern in correspondence with the residual capacity information (See Col. 5 lines 21-22 and lines 25-27).

With respect to claim 9, Toya teaches a battery residual capacity display control (Col. 4 line66 and 67; Col. 5 line 1-7. see also Col. 5 line 16 –27) method in an electric charging apparatus as described in claim 1 comprising a reception step of receiving capacity information (Col. 5 lines 21-27), a display control step of displaying a battery residual capacity (Col. 6 lines 40-50).

With respect to claim 12, Toya teaches, in addition to the charging apparatus mentioned above as in calim1, a communication unit (Fig. 3 element 12 and 35), a display control (Fig. 3 element 36 and 43) configured to display battery residual capacity information, and a control unit (Fig. 3 element 43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toya (US 5,525,888) as applied to claim 1 above, and further in view of Horigome et al (US 5,631,677) combined with Nakamiya (US 6,563,766).

With respect to claim 3, Toya discloses the charging apparatus according to claim 1 as set forth above in the 35 USC 102 rejection above, and electrical power input means based on a commercial power source (Fig. 3 element 32), however, does not

explicitly disclose power source relay means for the driving voltage inputted by said electric power input, in addition to the output voltage from the battery.

The Nakamiya reference teaches driving voltage inputted by said power input (Fig. 3 element 19) and voltage from the battery (Fig. 3 element 20. see Col. 6 lines 7-10). Nakamiya, however, does not disclose power source relay expressly. The Horigome reference, on the other hand, teaches power source relay as the power-generating device (Fig. 1 element 40) introduces an electromagnetic induction type alternating current power generating device in which a power generating rotor (Fig. 1 element 42) so as to output a power induced in a power generating coil connected to a power generating stator (Fig. 1 element 42). As a result, a power is generated by the use of energies related to the user's activities, and thus generated power drives the device (see Col 9 lines 19-35).

With respect to claim 4, Toya discloses the charging apparatus according to claim 3, but, doesn't disclose wherein said power source relay means selects higher one of the output voltage from the battery and the driving voltage from the said electric power input means, and supplies the selected voltage. Horigome et al, however, teaches, " for selecting either of these two driving power supplies, and a power –supply of the driving power supply and sending an output signal to an input port." (Col. 6 lines 7-16)

Toya, Nakamiya and Horigome et al are analogous art because they are from the same field of endeavor namely battery charging, battery capacity and voltage detection of electronic apparatus.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, to have added a power source relay means and selecting higher one of the secondary battery and the driving voltage output voltages from said electrical input power. The suggestion and motivation for doing so would have been obvious in view of the teachings of Toya, Horigome et al, and Nakamiya as described above.

Therefore, it would have been obvious to combine Horigome et al, Nakamiya with Toya for the benefit of the charging apparatus comprising electric power input means, power source relay means, and power source selecting means of higher output voltage from the battery and electric power driving input to obtain the invention as specified in claims 3 and 4.

Claim 5, 6 and 10 are rejected under 35 USC 103 (a) as being unpatentable over Toya (US 5,525,888) further in view of Nakamiya (US 6,563,766).

With respect to claim 5 and 10, Toya discloses an electronics apparatus (Fig. 1 element 10), as noted above, which an electronic charging unit (Fig. 3 element 30) comprising residual capacity detection means (Col. 5 lines 17-19), residual transmission means (Col. 5 lines 20-27) for transmitting residual capacity information detected.

Toya, however, does not disclose predetermined timing is a status where the secondary battery is under pretty much a constant load. The Nakamiya reference, however discloses predetermined timing (Col. 3 lines 57-67), also "a discriminating result selecting unit for selecting anyone of plurality of voltage detecting result signal corresponding to said plurality of detected voltages, based on discriminating result of

said power source kind discriminating unit to output same"(Col. 4 lines 18-26). Anyone of the detected voltage is an approximate constant load.

With respect to claim 6, Toya also teaches the electronic apparatus according to claim 5, where in residual capacity detection means detects the residual capacity based on an output voltage from the secondary battery (Col. 6 line 45 and 46).

Toya and Nakamiya are analogous art because they are from the same field of endeavor namely battery charger and battery capacity detection.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, to have added predetermined timing status of a battery to the residual capacity detection and transmission means of an electronic apparatus.

The suggestion and motivation for doing so would have been obvious in view of the teaching of Nakamiya in Col. 3 lines 57-67 that by charging for a predetermined time, one can ensure full charging of the battery.

Therefore it would have been obvious to combine Nakamiya with Toya for the benefit of residual capacity detection (based on an output voltage), transmission and predetermined timing status when the battery is under a constant electric load of an electronic apparatus to obtain the invention as specified in claims 5, 6, and 10 in order to ensure full charging.

Claims 7, and 8 are rejected under 35 USC 103(a) as being unpatented over Toya (US 5,525,888) in combination with Nakamiya (US 6,563,766) and Horigome et al. (US 5,631,677).

With respect to 7 and 8, Toya and Nakamiya disclose an electronics apparatus (Fig. 1 element 10), which an electronic charging unit (Fig. 3 element 30) comprising residual capacity detection means (Col. 5 lines 17-19), residual transmission means (Col. 5 lines 20-27), and a predetermined timing (Col. 3 lines 57-67). However, Toya and Nakamiya references do not disclose wherein said electronic apparatus is an image printing apparatus as in claim 7, and an ink jet printing apparatus as in claim 8.

Horigome et al., however discloses imaging printing apparatus (abstract), which performs image printing by driving a print head (Fig. 1 element 12); and an ink jet printing apparatus (Fig. 1; Col. 3 lines 33-34) that forms an image of printing medium by discharging ink from the print head (Col. 5 lines 33-40).

Toya, Nakamiya and Horigome et al. are analogous arts because they are from the same field of endeavor namely printing apparatus, battery charger and battery capacity detection.

At the time of the invention it would have been obvious to a person having ordinary skill in the art to provide charging unit with capacity detections, and residual transmission means as taught by Toya and Nakamiya to the printer apparatus of Horigome et al. to provide a residual capacity detection means for the image printing apparatus, and ensure the battery charging condition of the printer.

The suggestion and motivation for doing would have been that the use of charging unit, and residual capacity detection informs the user about the battery power condition and prevents the printer form running out of power while in use.

Therefore it would have been obvious to combine Horigome et al with Toya and Nakamiya for the benefit of printing apparatus with charging and capacity detection means to obtain the invention as specified in claims 7 and 8.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yalkew Fantu whose telephone number is 571-272-8928. The examiner can normally be reached on (M-F);(8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KARL EASTHOM
SUPERVISORY PATENT EXAMINER